

**Columbus Metropolitan
Facilities Plan Update
November 3, 2000**

INTRODUCTION

The City of Columbus is submitting this updated Facilities Plan to address regional wastewater management needs through 2020. The overarching goal of this document is to provide a blueprint for protecting our water while meeting the demands of regional growth. The initial Columbus Metropolitan Facilities Plan for wastewater management was submitted by Columbus in 1976 and updated in 1984. Columbus requests that Ohio EPA approve this plan and incorporate it into the 208 Areawide Waste Treatment Management Plan for the Central Ohio Region. This narrative and accompanying supporting maps constitute the City of Columbus' Columbus Metropolitan Facilities Plan Update.

METHODOLOGY

The City of Columbus conducted a series of cross-departmental work sessions over a period of eight months. The City work group included representatives from the Department of Public Utilities in both storm water management and sanitary sewer planning and construction, the Department of Trade and Development, the Health Department, the City Attorney's Office, and Malcolm-Pirnie, the City's overall engineering coordination consultant.

The City work group factored the following policies and goals into its planning decisions and ultimately this update:

- Protecting our water – drinking water and other critical water resources, particularly in the Darby Watershed;
- Maximizing existing infrastructure investments;
- Incorporating watershed planning;
- Mitigating stormwater impacts from development, particularly in areas of predominately hydric soils; and
- Curbing urban sprawl.

This plan is designed to address wastewater management needs through the year 2020. To accomplish this, the City work group determined which areas within the boundary are projected to have population densities of greater than 2 persons per acre by 2020. The work group used the following tools to make that assessment: 20 year population projections produced by the Mid Ohio Regional

Planning Commission in conjunction with Department of Development planning documents such as the Columbus Comprehensive Plan, South Central Accord, Rocky Fork-Blacklick Accord, and Department of Public Utility documents such as municipal contracts and planned sewer extensions.

After the City work group created a proposed draft Facilities Plan Update, City representatives presented the draft, through a series of colloquies over a four-month period, to regional stakeholders for consultation and comment.

REGIONAL SUPPORT FOR FACILITIES PLAN UPDATE

The City of Columbus contacted over 70 organizations representing regional sanitary sewer districts, municipal and township officials, county commissioners, and other stakeholders. Our stakeholder consultation efforts were designed to give every regional partner the maximum amount of information and the opportunity to give input on the plan before it was presented to the Ohio EPA as a final document. The City developed a cd-rom presentation describing its proposal. More than two hundred copies of the cd-rom were distributed to stakeholders and placed in every public library in Franklin County. The City placed the draft plan on the City's website and created a feedback button for electronic stakeholder comment. A 90-minute presentation on the draft plan was videotaped and cablecast 8 times between August 29th and September 23rd on G-TV3, government television. Representatives of the City conducted more than thirty separate stakeholder-briefing sessions. Please see Appendix A of the Response to Comments for a complete listing of stakeholders consulted.

As a result, the following entities have submitted endorsement letters for this Facilities Plan Update:

City of Bexley	Village of Shawnee Hills
Village of Canal Winchester	City of Upper Arlington
City of Dublin	City of Westerville
City of Gahanna	Southwest Licking Community Water & Sewer District
City of Grove City	Fairfield County
Village of Groveport	The Nature Conservancy
City of Hilliard	The Building Industry Association of Central Ohio
Village of New Albany	Ohio Environmental Council
Village of Obetz	Ohio Department of Development
City of Pickerington	
City of Reynoldsburg	
Village of Riverlea	

The following have submitted comment letters:

Brown Township	Pleasant Township
Plain Township	Prairie Township

Jefferson Township
Jerome Township
Scioto Township
Jefferson Water & Sewer District
Franklin County
Licking County
Madison County
Pickaway County
Union County
Metroparks
Village of Plain City
Rickenbacker Port Authority
Citizens Utilities Company of Ohio

Central Ohio Sierra Club
Franklin Soil and Water
Conservation District
Darby Creek Association, Inc.
Karen M. Mancl, Ph.D.
Bruce W. Berdanier, Ph.D., P.E.
Joe Martin
Donna M. Carrel
Lawrence Baumgartner
John Tetzloff
Plain Township Petition
Letter to the Editor

All referenced letters are submitted with this Plan at Appendix B of the Response to comments.

STRATEGIES FOR WASTEWATER SERVICE

The proposed Facilities Plan Area boundary has been modified to reflect the City's desire to plan on a watershed basis. Within that boundary area, service shall be provided in the following manner.

I. HOUSEHOLD SEWAGE DISPOSAL SYSTEMS

Individual sewage disposal systems that are properly installed and maintained are acceptable; if incorrectly installed or not operated nor maintained properly they present a threat to water quality within the proposed Facilities Plan Area. This is particularly true in the unincorporated areas of Franklin County because of the high concentration of hydric soils. Because these systems are outside of the jurisdiction of the Ohio EPA's permitting authority, the City recognizes that this document cannot dictate whether or not additional household sewage disposal systems, as that term is defined in O.A.C. § 3701-29-02, should be installed within the Facilities Planning Area. The City recognizes, however, the need for more comprehensive state rules and regulations, enhanced local enforcement of sanitary rules, adoption of better management regulations, and the continued education of system owners and operators. The City will be supportive of efforts by the local and state health departments to implement these environmental protection measures.

II. ALTERNATIVE WASTEWATER SYSTEMS

The Columbus Metropolitan Facilities Planning Area (FPA) is largely urban and suburban. Population projections forecast that over 325,000 new residents will be added to the area within the next twenty years. The majority of residents within the FPA live in jurisdictions that have invested hundreds of millions of

dollars in centralized wastewater treatment facilities. The land available for development within the FPA, particularly in the Darby Watershed, contains soils, which are predominately hydric.

Alternative wastewater treatment systems¹ are not suitable for the Columbus Metropolitan FPA, but they may be suitable for use in isolated, rural areas that are low in population density, if the area topography and soil conditions are suitable. In this metropolitan area, alternative wastewater treatment systems duplicate existing centralized sewer infrastructure and undermine the revenue base that supports the central systems. The hydric soils are not suitable for use for alternative wastewater treatment systems. Land application on saturated soils will cause effluent to pond and bring concomitant odor problems or run off the land application site to surface waters. Without additional regulation, including a system of renewable operating permits, alternative wastewater treatment system technology may be misused, giving rise to adverse environmental impacts, including threats to drinking water.

After thorough consideration of the advantages and limitations of alternative wastewater treatment systems, these systems are not, on balance, appropriate for use within the Facilities Planning Area (FPA) boundary. No alternative wastewater systems shall be installed or operated within the FPA boundary.

III. CENTRALIZED WASTEWATER TREATMENT

A. City of Columbus Sewer System

All areas within the Facilities Planning Area Boundary may be served by the City of Columbus sewer system. With the exception of those areas particularly enumerated below in Section B, all areas within the Facilities Plan Area Boundary shall be served exclusively by extending sanitary trunk sewers and branch sewers into the area. Wastewater collected from these areas shall be conveyed to either the Jackson Pike or Southerly Wastewater Treatment facilities or any future wastewater treatment plant owned and operated by the City of Columbus for treatment and discharge.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the City of Columbus sewer system when the Columbus system is

¹ For purposes of this plan, alternative wastewater treatment systems will be considered to be all wastewater treatment systems which require an Ohio EPA Permit to Install, are capable of treating greater than 1500 gallons per day of wastewater, and dispose of the treated wastewater by a method other than a direct discharge to surface waters of the state under the authority of a National Pollutant Discharge Elimination System permit.

extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing non-centralized wastewater treatment systems may continue to operate with existing sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

B. City of Columbus Sewer System with Special Conditions

1. *Environmentally Sensitive Development Area (ESDA)*

This area is particularly sensitive to negative impacts from development because it is located within the Darby Creek Watershed (a State and National Scenic River system) and because of the presence of extensive hydric soils, and minimal slope. Of particular concern is the potential for wastewater and stormwater pollution that would come with haphazard growth. Creation of the Environmentally Sensitive Development Area (ESDA) is consistent with the 1993 Columbus Comprehensive Plan's provision for an Environmental Conservation District. Unplanned growth poses a threat to the Darby Creek Watershed and the unique biodiversity of its aquatic and prairie land ecosystem.

It is recognized that some future development of this area will occur. While the City of Columbus will ultimately provide centralized service within a portion of it, no service whatsoever shall be provided within the ESDA until the following conditions are met for the area to be served:

- Riparian buffer restrictions are in place;
- Comprehensive stormwater management planning has occurred;
- Conservation development restrictions are in place which involve the concept of clustering development to preserve tracts of open space, including farmland; and
- Adequate public facilities, including roadways, exist or are planned to support any proposed development.

The City of Columbus will convene an External Advisory Group (EAG) composed of diverse stakeholders within the ESDA. This EAG will operate using a process based on the Ohio Environmental Protection Agency EAG model. The EAG will be tasked with studying and recommending to the Director of Public Utilities for the City of Columbus criteria or standards by which fulfillment of each protective condition could be measured. At least all of the following stakeholders, having commented upon the draft Columbus Metropolitan Facilities Plan Update will be invited to participate in this process: Brown Township, Norwich Township,

Pleasant Township, Prairie Township, the City of Hilliard, the City of Grove City, Franklin County, Franklin County Soil & Water Conservation District, Metroparks, the Building Industry Association of Central Ohio, the Nature Conservancy, Darby Creek Association, Ohio Environmental Council, and Central Ohio Sierra Club, as well as other interested stakeholders. The City of Columbus will provide information and staff to the EAG. The EAG will present its non-binding recommendations to the Director of Public Utilities for the City of Columbus. The City of Columbus will retain ultimate authority for all operational decisions relating to its municipal utilities.

2. *Canal Winchester Area*

This area is currently served by centralized sewer operated by the Village of Canal Winchester. Wastewater collected in the Village of Canal Winchester shall be conveyed to Canal Winchester's existing and/or future publicly owned treatment works for treatment and discharge. Canal Winchester may also provide services in identified expansion areas on a non-exclusive basis. Such service shall continue unless or until, Canal Winchester desires to connect its system to the City of Columbus sewer system or another centralized sewer system serving a watershed inside the Facilities Planning Area boundary. Such connection shall occur in a manner that is mutually agreeable to both systems.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the Village of Canal Winchester sewer system when the Canal Winchester system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

3. *Pickerington Area*

This area is currently served by centralized sewer operated by the City of Pickerington. Wastewater collected in the City of Pickerington shall be conveyed to Pickerington's existing and/or future publicly owned treatment works for treatment and discharge. Pickerington may also provide services in identified expansion areas on a non-exclusive basis. Such service shall continue unless or until, Pickerington desires to connect its system to the City of Columbus sewer system or another centralized sewer system serving a watershed inside the Facilities Planning Area boundary. Such connection shall occur in a manner that is mutually agreeable to both systems.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the Pickerington sewer system when the Pickerington system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

4. *Jefferson Township Water and Sewer District Area*

A portion of this area is currently served by the centralized sewer system operated by the Jefferson Township Water and Sewer District. Wastewater collected in this area is currently conveyed to Jefferson Township Water and Sewer District's existing publicly owned treatment works for treatment and discharge. Such service shall continue to the existing and/or future publicly owned treatment works unless or until, the sewer district desires to connect its system to the City of Columbus sewer system. Such connection shall occur in a manner that is mutually agreeable to the City of Columbus and the sewer district.

Wastewater collected in this area through future conveyance systems shall be conveyed to either Jefferson Township's Water and Sewer District's or the City of Columbus' existing or future wastewater treatment plants.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the Jefferson Township Water and Sewer District sewer system or the City of Columbus sewer system, directly or through a contracting municipality, when either system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

5. *Southwest Licking Community Water & Sewer District*

A portion of this area is currently served by a centralized sewer system operated by the Southwest Licking Community Water & Sewer District. Wastewater collected in this area is currently conveyed to Southwest Licking Community Water & Sewer District's existing publicly owned treatment works for treatment and discharge. Such service shall continue to the existing and/or future publicly

owned treatment works unless or until, the sewer district desires to connect its system to the City of Columbus sewer system. Such connection shall occur in a manner that is mutually agreeable to the City of Columbus and the Sewer District.

Wastewater collected in this area through future conveyance systems shall be conveyed to either Southwest Licking Community Water & Sewer District's or the City of Columbus' existing or future wastewater treatment plants.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the Southwest Licking Community Water & Sewer District sewer system or the City of Columbus sewer system when either sewer system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

6. *Darbydale Area*

This area is currently served by septic systems and home aerators. Many of these systems are failing and are attached to storm drains within the vicinity. This allows unsatisfactorily treated wastewater to enter Big Darby Creek. The area is geographically removed from any existing centralized wastewater treatment system.

Pleasant Township is presently exploring the potential of constructing and operating a new publicly owned and operated centralized wastewater treatment system. In the event such a system is constructed, wastewater collected from existing structures in this area shall be conveyed to the new publicly owned wastewater treatment works for treatment and discharge to the Big Darby after an anti-degradation review and pursuant to a National Pollutant Discharge Elimination System permit. Discharging effluent to the Big Darby Creek from a properly designed, operated and permitted centralized wastewater treatment plan will reduce the overall regulated constituent loading to the Big Darby Creek, decreasing the environmental impact on the Big Darby Creek from this existing community. Such service shall continue unless or until, the owner and operator of the new system desires to connect its system to the City of Columbus sewer system. Such connection shall occur in a manner that is mutually agreeable to both systems.

Wastewater collected in this area from structures built in the future shall be conveyed to either the new publicly owned wastewater treatment works or the

City of Columbus' existing or future wastewater treatment plants, in conformance with the requirements of the Environmentally Sensitive Development Area.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to any new publicly owned wastewater treatment system serving the Darbydale area when the Darbydale sewer system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

7. Union County Area

The unincorporated areas of Union County are currently served by individual sewage disposal systems or public sanitary sewers owned by the Union County Sewer District. This area is also included in a service contract between the City of Columbus and the City of Dublin. Wastewater collected in the Union County public sanitary sewers is currently conveyed to the City of Marysville for treatment and discharge to Mill Creek. Such service shall continue until such time as Union County selects a different means for treating its wastewater. If Union County desires to convey its wastewater to the City of Columbus for treatment, such conveyance and treatment shall occur in a manner that is mutually agreeable to the City of Columbus and Union County.

Wastewater collected in this area through future conveyance systems shall be conveyed to either the City of Marysville or some other publicly owned wastewater treatment plant designated by the Union County Sewer District through Union County Sewer District conveyance systems or the City of Columbus' existing or future wastewater treatment plants.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the Union County Sewer District sewer system or the Columbus sewer system when either sewer system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

8. *Citizens Utility Company of Ohio*

There are three areas, Blacklick Estates, Lake Darby Estates, and Huber Ridge, which are currently served by centralized sewer operated by a private utility, Citizens' Utilities. Such current service shall continue unless or until, the utility desires to connect its system to the City of Columbus sewer system. Such connection shall occur in a manner that is mutually agreeable to the City of Columbus and the Citizens Utility Company of Ohio.

6.9. *Fairfield County Tussing Road Area.*

This area is currently served by centralized sewer operated by the Fairfield County Water and Sewer District. Wastewater collected in Fairfield County shall be conveyed to Fairfield County Water and Sewer District's existing and/or future publicly owned treatment works for treatment and discharge. Such service shall continue unless or until, the sewer district desires to connect its system to the City of Columbus sewer system. Such connection shall occur in a manner that is mutually agreeable to the City of Columbus and the sewer district.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to the Fairfield County Water and Sewer District sewer system when the system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

10. *Fairfield County Little Walnut Area .*

This area is currently served by centralized sewer operated by the Fairfield County Water and Sewer District. Wastewater collected in this area is currently conveyed to Fairfield County Water and Sewer District's existing publicly owned treatment works, the Little Walnut Regional Water Reclamation Facility, for treatment and discharge. Such service shall continue unless or until, Fairfield County desires to connect its system to the City of Columbus sewer system or another centralized sewer system serving a watershed inside the Facilities Planning Area boundary. Such connection shall occur in a manner that is mutually agreeable to the both systems.

Wastewater collected in this area through future conveyance systems shall be conveyed to either Fairfield County Water and Sewer District's, Pickerington's, or Canal Winchester's existing or future wastewater treatment plants.

Existing (developed) commercial, industrial, institutional and residential properties within the area that are currently served by properly permitted and operating non-centralized wastewater treatment systems, shall be required to connect to a centralized wastewater treatment system when such system is extended to within 200 feet of the serviced structure. Until centralized sewers are within 200 feet of the existing serviced structure, such existing (developed) properties may continue to operate with existing non-centralized sanitary facilities so long as those facilities are properly permitted for existing flows by the appropriate health department and/or the Ohio EPA. The flows to such existing non-centralized sanitary facilities, however, may not be expanded nor increased.

11. *Outside of Sewer Service Areas.*

The City of Columbus wastewater treatment system is capable of treating all wastewater that is generated within the Facilities Planning Area boundary. In addition to the City of Columbus system, Canal Winchester, Pickerington, Jefferson Township Water & Sewer District, Southwest Licking Community Water & Sewer District, Union County, Fairfield County, and Citizens Utilities Company of Ohio also provide service within the FPA. Each of these centralized systems has identified the area for which each expects to provide service within the next twenty years. The composite of those service areas is shaded yellow on the Columbus Metropolitan Facilities Plan Update base map.

In order to accommodate the development of modestly-sized commercial and institutional establishments prior to the extension of centralized sewer, an individual on-site wastewater treatment system or holding tank meeting the following conditions may be installed outside of these service areas:

- The wastewater treatment system or holding tank shall be designed for flows no greater than 1500 gallons per day;
- The wastewater treatment system shall not generate an off-site discharge;
- A suitable area shall be available to provide for the complete relocation and replacement of the on-site sewage disposal system should the original system fail prior to public sewer becoming available.
- The wastewater treatment system shall not include an aeration system, unless the Ohio EPA permit to install authorizing the construction of the system includes, as a permit term or condition, a requirement that the owner

of the system contract with a qualified service provider for maintenance on the system.

- The wastewater treatment system or holding tank shall be abandoned and demolished, at the owner's expense, within six months of the date upon which central sewers are extended to within 200 feet of the structure serviced by the system.

CONCLUSION

This Facilities Plan Update meets the goals of protecting our water – drinking water and other critical water resources, particularly in the Darby Watershed, maximizing existing infrastructure investments, incorporating watershed planning into wastewater management, mitigating stormwater impacts from development, and curbing urban sprawl in a manner which is sensitive to the interests of the regional stakeholders. The City of Columbus requests that the Ohio EPA approve this Update and act to have it incorporated into the regional 208 Areawide Waste Treatment Management Plan.